REMARKS

Favorable reconsideration of the subject application is respectfully requested in view of the above amendments and the following remarks. Claims 30 and 32-34 are pending and under consideration. By the present amendment, claims 33 and 34 are cancelled. Claim 30 is amended to more specifically recite one aspect of the invention. Support for these amendments may be found throughout the specification and claims as originally filed, and it is urged that the amendments do not constitute new matter. It should also be noted that the above amendments are not to be construed as acquiescence with regard to the Examiner's rejections and are made without prejudice to prosecution of any subject matter removed or modified by this amendment in a related divisional, continuation or continuation-in-part application.

Rejection Under 35 U.S.C. § 112, First Paragraph, Written Description

Claims 33 and 34 stand rejected under 35 U.S.C. § 112. first paragraph, for allegedly lacking an adequate written description of the claimed subject matter in the specification. Specifically, the Examiner asserts that the instant specification does not describe the structure of specific epitopes of the claimed monoclonal antibodies that are necessary for the binding of Bad polypeptide to Bcl-2 or Bcl-X_L.

Applicants respectfully traverse this basis of rejection and submit that the claimed antibodies satisfy the written description requirement. However, without acquiescence to this basis of rejection and solely to expedite prosecution of the instant application, Applicants have cancelled claims 33 and 34, thereby obviating this basis of rejection. Accordingly, Applicants respectfully request that the Examiner withdrawn this basis of rejection.

Rejection Under 35 U.S.C. § 112, First Paragraph, Enablement

Claim 30 stands rejected under 35 U.S.C. § 112, first paragraph, for allegedly lacking a specification enabling for the a monoclonal antibody that binds a polypeptide "comprising" the amino acid sequence of SEQ ID NO:2.

Applicants respectfully traverse this basis of rejection and submit that the specification is enabling for the claimed antibodies. Nonetheless, without acquiescence to this

basis of rejection and solely to expedite prosecution of the instant application, Applicants have amended claim 30 to replace the term "comprising" with the phrase "consisting of." Support for this amendment is provide throughout the specification and claims as filed, including, *e.g.*, on page 40, line 5. Applicants submit that the specification is clearly enabling for monoclonal antibodies that specifically bind a polypeptide consisting of SEQ ID NO:2, as acknowledged by the Examiner. Applicants respectfully request that the Examiner reconsider and withdrawn this basis of rejection, in light of this amendment.

Rejection Under 35 U.S.C. § 102(e)

Claims 30 and 32 stand rejected under 35 U.S.C. § 102(e) as allegedly anticipated by U.S. Patent No. 5,622, 852 ("the '852 patent"). The Examiner asserts that the '852 patent described antibodies to mouse Bad polypeptides, and that these would inherently cross-react with human Bad polypeptides.

Applicants respectfully traverse this basis of rejection and maintain that the Examiner has failed to establish a *prima facie* case of anticipation of the presently claimed invention by the '852 patent, since the '852 patent does not described antibodies that specifically bind to a human Bad polypeptide, and the Examiner has failed to demonstrate that the antibodies described in the '852 patent (which are specific for a mouse Bad polypeptide) would inherently bind to a human Bad polypeptide. As discussed extensively in the previous Amendment filed September 26, 2004, the Examiner bears the initial burden of establishing that the subject matter of the presently claimed invention is inherently present in the '852 patent. Furthermore, in relying on a theory of inherency, "the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (BPAI 1990) (emphasis in original). Applicants maintain the position that in the instant case, the Examiner has provided no reasonable basis for concluding that the presently claimed subject matter is necessarily coextensive in scope with any antibody disclosed in the '852 patent. Accordingly, Applicants submit that the PTO has failed to meet its burden of establishing that the subject matter of the presently claimed invention is inherently present in the '852 patent.

As support for her conclusion that antibodies to murine Bad would necessarily bind to the human Bad polypeptide of SEQ ID NO:2 (which shares only 75% amino acid sequence identity), the Examiner refers to Kamarck as teaching the existence of a family of 6-10 molecules that share epitopes with the CEA protein and are cross-reactive antigens. However, the Examiner has not provided any description of the relationship between these proteins, including the level of amino acid sequence identity between them. A review of Kamarck indicates that these proteins share substantial homology. For example, NFA-2 is described as being "almost indistinguishable from CEA" (p. 5350, column 1, last paragraph). In addition, limited protein sequencing of some of the CEA-related antigens has revealed a high degree of amino-terminal sequence homology between these molecules (p. 5350, column 1, last paragraph), and CEA itself was shown to include a number of internal repeats with a high degree of amino acid sequence homology (p. 5352, column 2, third paragraph). In fact, these antigens are all of the same species, and it appears that their genes are located on the same chromosome, which suggests that they resulted from a gene duplication event. The only conclusion to be drawn from the teachings of Kamarck is that these apparently highly related proteins share cross-reactive epitopes. Kamarck provides no basis to conclude that antibodies to murine Bad polypeptides will necessarily cross-react with human Bad polypeptides.

In addition, the Examiner asserts that Banki supports her position, since it demonstrates that an antibody to human transaldolase binds yeast transaldolase, and these proteins share approximately 58% amino acid sequence homology. Again, Applicants submit that this is insufficient to establish that an antibody to murine Bad polypeptides will necessarily also bind to human Bad polypeptides. Banki specifically notes that while the full length proteins share only 58% homology, there are blocks of 11-15 amino acids in which the identity is 100% (p. 2850, column 2, paragraph 1). It should also be noted that of the two polyclonal antisera to human transaldolase generated in Banki, only one exhibited cross-reactivity with yeast transaldolase (p. 2849, column 1, paragraph 2), further demonstrating that it is not a foregone conclusion that antibodies generated against one protein will necessarily cross-react with a homolog of a different species, particularly when there exists a relatively low degree of sequence identity, as exists between the murine and human Bad polypeptides.

Applicants submit that the human Bad and mouse Bad polypeptide sequences still share only 75% homology, which is clearly not sufficient to conclude that antibodies directed against one would necessarily cross-react with the other. Since this is the showing that the Examiner must make in order to establish a *prima facie* case of anticipation based upon a theory of inherency, Applicants submit that the Examiner has simply not met her burden, and, thus, has not demonstrated anticipation of the claimed antibodies by the '852 patent.

The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

Applicants respectfully submit that all of the claims remaining in the application are now clearly allowable. Favorable consideration and a Notice of Allowance are earnestly solicited.

Respectfully submitted,

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